

## ABSTRACT OF THE DISCLOSURE

- 5    A bit selection method will generate and record or display a sequence of drill bits chosen from among a plurality of bit candidates adapted for drilling an Earth formation in response to input data representing Earth formation characteristics of the formation to be drilled by: comparing the input data representing the characteristics of the formation to be drilled with a set of historical data including a plurality of sets of Earth formation
- 10    characteristics and a corresponding plurality of sequences of drill bits to be used in connection with the sets of Earth formation characteristics, and locating a substantial match between the characteristics of the formation to be drilled associated with the input data and at least one of the plurality of sets of Earth formation characteristics associated with the set of historical data; when the substantial match is found, generating one of the
- 15    plurality of sequences of drill bits in response thereto; and recording or displaying the one of the plurality of sequences of drill bits on a recorder or display device.